ABSTRACT OF THE DISCLOSURE

For eliminating waste of ink and achieving high charging efficiency with a reduced charging time where a printing head is equipped with a second tank for reserving a predetermined amount of ink and a supply system is configured to supply ink from a first tank to the second tank intermittently, the second tank is provided with a variable internal volume. The internal volume is varied to cause the second tank itself to function as an actuator for charging ink and performing a venting process. Specifically, the internal volume is forcibly reduced to cause a reverse flow of a gas residing in the second tank along with ink into the first tank, which makes it possible to generate of waste ink that is released to the outside. A normal charging operation can be completed simply by causing a change in the opposite direction (the direction of increasing the internal volume). Relatedly, the second tank may be provided with a member for holding ink and generating a negative pressure originating from an elastic force. With connection of the first tank and the member, the pressure in the second tank is reduced to cause the member to expand, thereby introducing ink into the same. This introduction is stopped by regulating the expansion with a displaceable unit which expands when the pressure is reduced. The regulation is performed at such a position that the negative pressure generated in the member by canceling regulation is in equilibrium with an ink meniscus-holding ability of the printing head.